WHAT IS CLAIMED IS:

1. A system for monitoring an industrial process, the system comprising;

a process controller; an input module coupled to the process controller, the input module being adapted to input a plurality of parameters from a process for manufacture of a substance;

a computer aided process module coupled to the process controller, the computer aided process module being adapted to compare at least two of the plurality of parameters against a predetermined training set of parameters, and being adapted to determine if the at least two of the plurality of parameters are within a predetermined range of the training set of parameters; and

an output module coupled to the process controller, the output module being adapted to output a result based upon the determining step.

2. The system of claim 1 wherein the substance is selected from a petroleum product, a chemical product, a food product, a health product, a cleaning product, a biological product, and other fluid or objects.

3. The system of claim 1 wherein the plurality of parameters are selected from an intrinsic element or an extrinsic element of the process.

4. The system of claim 1 wherein the input module, the computer aided process module, and the output module are provided in a computer software program.

5. The system of claim 1 wherein the computer aided process includes an algorithm selected from PCA, HCA, KNN CV KNN Prd, SIMCA CV, SIMCA Prd, Canon Prd, SCREAM, and Fisher CV.

6. The system of claim 1 further comprising a normalizing module coupled to the process controller, the normalizing module being adapted to normalize each of the plurality of parameters before input into the computer aided process module.

7. The system of claim 1 wherein the training step of parameters are preprocessed in at least two of the computer aided processes.

8. The system of claim 1 wherein the result is an affirmative response or a .negative response, where the response is displayed on a terminal.

9. The system of claim 1 wherein the computer aided process is selected from a library comprising a plurality of processes.

10. The system of claim 9 wherein the plurality of processes includes at least a comparing process, a contrasting process, and a functional process.

11. A system for monitoring an industrial process for the manufacture of materials or objects, the system comprising:

an input module, the input module being adapted to input a plurality of process parameters from a process for manufacture of a substance or object;

a library module coupled to the input module, the library module including a plurality of computer aided processes, each of the computer aided processes being capable of determining an output based upon a predetermined training set of the plurality of process parameters;

an output module coupled to the library module, the output module being adapted to output a result based upon the predetermined training set and the plurality of process parameters;

wherein each of the computer aided processes compares at least two of the plurality of process parameters against a portion of the training set of parameters and determines if the at least two of the plurality of process parameters are within a predetermined range of the portion of the training set of parameters.

12. The system of claim 11 wherein the substance is selected from a petroleum product, a chemical product, a food product, a health product, a cleaning product, a biological product, and other fluid or objects.

13. The system of claim 11 wherein the plurality of process parameters are selected from an intrinsic element or an extrinsic element of the process.

14. The system of claim 11 wherein the input module, the library module, and the output module are provided in a computer software program.

15. The system of claim 11 wherein the computer aided process includes an algorithm selected from PCA, HCA, KNN CV KNN Prd, SIMCA CV, SIMCA Prd, Canon Prd, SCREAM, and Fisher CV.

16. The system of claim 11 wherein the training set of parameters are preprocessed.

17. The system of claim 11 wherein the process parameters comprise at least olfactory information.

18. The system of claim 11 wherein the result is an affirmative response or a negative response, where the response is displayed on a terminal.

19. The system of claim 11 wherein the library module comprises a plurality of processes.

20. The system of claim 19 wherein the plurality of processes includes at least a comparing process, a contrasting process, and a functional process.

21. A system for controlling a process, the system comprising:

a first field mounted device in communication with a process and configured to produce a first input; and

process manager receiving the first input and configured to apply a first model to the first input to identify a first predicted descriptor characteristic of a state of the process, and configured to consult a first knowledge based system to provide an output based upon the first predicted descriptor.

22. The system of claim 21 wherein the process manager is a server in communication with the first field mounted device via a computer network.

23. The product of claim 21 wherein the process manager is a server in communication with a user through a network of computers utilizing a browser software program.

24. The product of claim 23 wherein the process manager is in communication with the first field mounted device via the computer network.

25. The system of claim 21 further comprising a second field mounted device receiving the output and adjusting an operational parameter of the process according to the output.

26. The system of claim 21 further comprising an output module including an interface between the process manager and an associated system including at least one of a legacy system, an e-enterprise system, and a desktop application.

27. The system of claim 21 wherein the first knowledge based system is an expert system.

28. The system of claim 21 wherein the model is constructed utilizing one of a univariate statistical technique, a multivariate statistical technique, a time series analysis, and a neural-based technique.

29. The system of claim 21 further comprising a library configured to store one of a group of different algorithms utilized to construct the first model.

30. The system of claim 21 further comprising a library configured to store one of a group of different algorithms utilized to construct the first model.

31. The system of claim 21 further comprising a second model, the process manager configured to apply the second model to the data to identify a second predicted descriptor characteristic of the process data, the process manager further configured to produce the output based upon the first predicted descriptor and the second predicted descriptor.

32. The system of claim 21 further comprising:

a second model; and

a second knowledge based system, the process manager applying the second model to the data to identify a second predicted descriptor characteristic of the process data, the second knowledge based system submitting one of the first predicted descriptor and the second predicted descriptor to the first knowledge based system where the first predicted descriptor is different from the second predicted descriptor.